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LORE TECHNICAL BULLETIN

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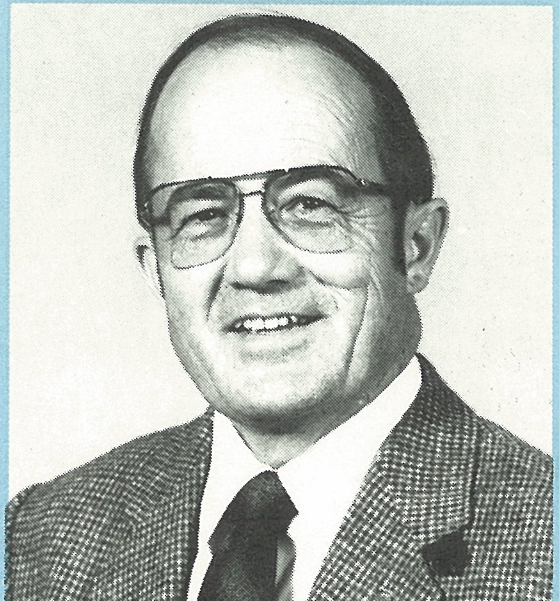

Canada

LORE TECHNICAL BULLETIN

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Cover

Featured are key members of the LORE Branch in 1983. Upper left is Col (Retd) GW Bruce, CD, Colonel Commandant of the LORE Branch, accompanied by BGen JGR Doucet, CD, DGLEM and LORE Branch Adviser.

The lower photos are CWO TD Jones, CD, Branch Chief Warrant Officer (left), with Col (Retd) RF Potter, CD, President, The LORE Association.

See inside for details.

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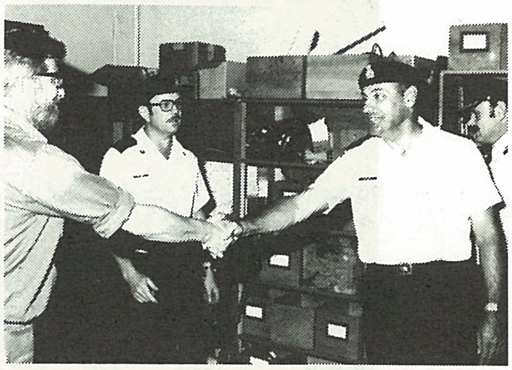

Col MAC Campbell is Director Land Engineering Support at NDHQ. Included in his responsibilities is the pleasant task of Editor, LORE Technical Bulletin.

FROM THE EDITOR'S DESK

I have now been in the DLES appointment for about one year. Among other things, it has been something of an eye opener to review and admire the effective work of my predecessors, and indeed the Branch generally, in keeping this Bulletin alive and reasonably well during the vagaries of staff shortages and fiscal restraint; those unwelcome but unavoidable companions of the past few years.

One of the greatest needs of our Branch is to improve communication among members. The LORE Technical Bulletin is an important link in achieving this objective, offering a forum for the discussion of ordnance engineering, maintenance, and related Branch problems and responsibilities; a vehicle, if you will, whereby members are kept informed and can contribute for the information of others.

It is my purpose to strengthen the Bulletin and innovate wherever possible to enhance reader appeal. You will note in this issue some design changes with just this in mind, and more are planned. The buzz word is ''peopleize''. But to do this I must receive much more from you, the reader, on local events and significant activities which go on almost daily in our widespread Branch. New ideas on how to improve the Bulletin, thoughts on the current issue, positive criticism, are all most welcome.

I intend to initiate and maintain closer contact with our Associate Editors who are the eyes and ears of the Bulletin; at the very centre of events and close to the sharp end, they are able to interpret meaningfully those engineering programs which begin here at NDHQ with the purpose of, hopefully, satisfying a user need. Response at this level on a continuing basis is essential.

Remember the title is LORE Technical Bulletin. The publication rests on a foundation of professionally oriented articles. So send them in, along with photos and write-ups of sporting activities, special parades, awards, promotions, personalities, visitors, and so forth. I will work here, to put together a publication which reflects, to your satisfaction, our Branch whose identity and traditions are still evolving.

Many of you will recall that 1984 marks the 40th Anniversary of the formation of RCEME, which came into being in 1944 during the height of the Second World War. I hope to develop an article or more to focus attention on this important event and would appreciate assistance in the form of photos, anecdotes, extracts, personal experiences and similar information which could be used to advantage. Please help if possible.

A final note on communication. An alternative channel has been reopened to members in the familiar Branch Adviser letters. The purpose here is to provide timely information and promulgate Branch guidance on matters of a continuing nature. A series of these letters is on the way.

COL (RETD) GW BRUCE, CD COLONEL COMMANDANT OF THE LORE BRANCH

Col (Retd) Gordon W Bruce, CD, was born in Calgary 13 Dec 1918. He began engineering studies at the University of New Brunswick in 1936 and was enrolled in the COTC the same year. In 1941, Col Bruce graduated with a BSc degree and transferred to the Canadian Army Active Force, 8th New Brunswick Hussars (Armoured), as a Lt Troop Leader.

Col Bruce served overseas during the Second World War in the UK and throughout active operations in Italy and NW Europe, rising to Maj, tank squadron commander. Impressed with the work of RCEME, he requested a transfer while on the ship returning to Canada at the end of the War.

In 1946, Col Bruce was formally transferred to RCEME and attended the EME Course, Kingston. During the period 1947-49 he was Staff Officer, DEME, AHQ, and from 1949-51 Canadian Liaison Officer, US Army, Fort Knox, Kentucky. In 1951, Col Bruce was appointed Chief Instructor, RCEME School, Kingston, and in 1954 he attended the Canadian Army Staff College. In 1955 he returned to Ottawa as RCEME representative, QMG Inspectorate.

From 1956-59, Col Bruce served as OC, 7 Coy RCEME, New Brunswick Area. From there, as LCol, he was employed 1959-66 in the various sections of DEME, AHQ, was appointed Deputy Director, and took time out to qualify in flying training at Rivers, Man.

In 1966, Col Bruce served as Senior Staff Officer, Materiel Command, Rockcliffe, and in 1967 was appointed Col, CO, 202 Workshop Depot, Montreal. He retired in 1974.

Col Bruce accepted the appointment of Colonel Commandant of the LORE Branch commencing 1 Jul 1983, for a three year term.

Col Bruce is a member of the Association of Professional Engineers of both Ontario and Quebec. He continues to be active as a light aircraft and glider pilot, and participates in sports such as skiing and tennis. He is married and lives in Quebec. His address is:

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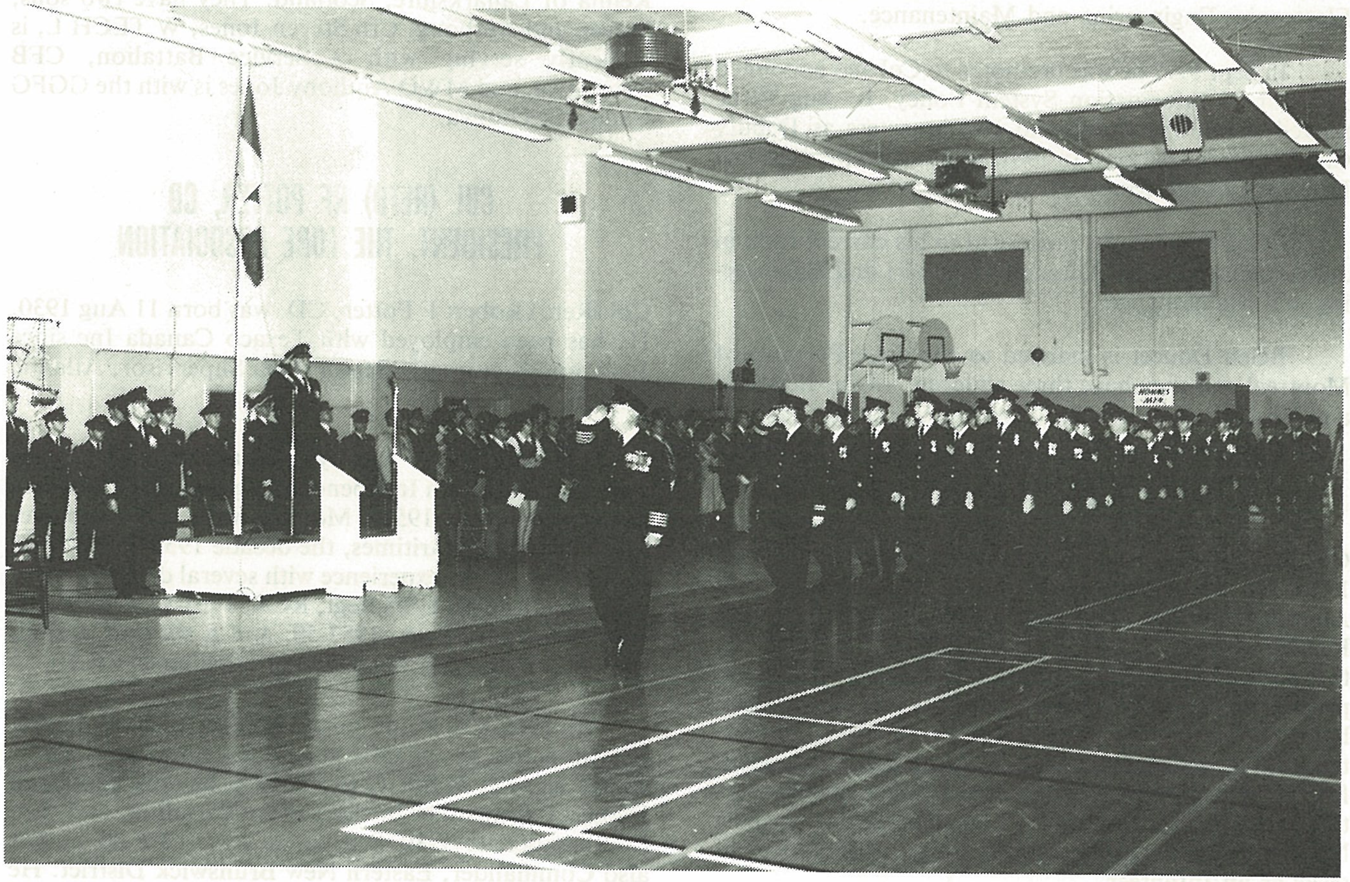

Change of Command ceremonies, 202 Workshop Depot, Montreal, 5 Oct 73. Leading the parade is Col (now retd) GW Bruce, outgoing CO. Taking the salute is MGen (now retd) DW Goss, CEM, and on his right is Col (now retd) WG Svab, incoming CO.

BGEN JGR DOUCET, CD

BGen Doucet was born 5 Sept 1936 in Montreal. He was enrolled as an officer cadet in Sep 53 and attended both CMR Saint-Jean and RMC Kingston. In 1960 he received an Electrical Engineering degree from the Universite de Montreal l'Ecole Polytechnique and was commissioned in RCEME.

As a Lt he served at the RCEME School and 2 Field Workshop RCEME where on promotion to Capt in 1962 he was appointed 2IC. From 1962 to 1965 he served in a number of technical, command and staff positions with 4 RCHA and 5 Coy RCEME in Quebec City. In 1965 he was selected to attend the Canadian Army Staff College Kingston.

On promotion to Maj in 1966 he was posted to Germany as CO 4 Field Workshop. From 1968 to 1970 he served in staff appointments at Mobile Command Headquarters St-Hubert.

In 1970, BGen Doucet was promoted to LCol and returned to CMR Saint-Jean as Vice Commandant. This was followed by staff appointments in 1973 to 1976 at NDHQ in the Directorate of Land Facilities and Resources, and the Directorate of Land Armament and Electronics Engineering and Maintenance.

In Sept 1977 he was promoted to Col and appointed Director of Information System Policy. In Aug 79 he moved to Mobile Command Headquarters as Deputy Chief of Staff Logistics. In 1981, he attended the National Defence College Kingston.

BGen Doucet was promoted to his current rank in Jul 82 and appointed Director General Land Engineering and Maintenance.

BGen Doucet is married to Monique Perrault of Montreal and they have three children, Alain, Bertrand and Elise.

CWO TD JONES, CD

CWO TD (Tom) Jones was born in Edmonton, 17 Jul 1937. His military career began in 1953 with the 19th Alberta Dragoons (Militia). In 1955 he enlisted in the Regular Force, 1 PPCLI, at Calgary, and shortly thereafter was posted to Iserlohn, Germany. After completing the Junior NCO course at Fort Chambly, Soest, he was promoted to Cpl in 1956. He returned to Canada the following year and served with the Bn in Esquimalt for the next six years. A qualified Small Arms Instructor, Motorcyclist Instructor, Signaller, and Transport NCO, CWO Jones was employed on a wide variety of tasks as an Infanteer.

In 1963, CWO Jones remustered to RCEME as a vehicle technician, serving initially with 1 Field Workshop and then 215 Workshop, Calgary. He proceeded through Groups 1 to 3 VEH TECH 411, and after completing the Senior Leader's Course and a pre-Group 4 Assessment, he qualified on the Vehicle Artificers Course. In 1966 he was promoted to Sgt and posted to the RCEME School, Kingston, as an Instructor. He was promoted to WO in 1968. From 1969 to 1972 he saw service again in Germany, with 4 Service Battalion and RCD, being promoted to MWO in 1971. The decade 1972 to 1982 involved promotion to CWO in 1975 and numerous postings including 3 RCHA and Base Maint Shilo; HQ UNEF II, Middle East; LETE, Ottawa, and a two year tour as Career Manager in DGPCOR/CPCSA, NDHQ.

CWO Jones is a keen observer of the LORE scene and a strong supporter of two basic tenets for a successful military career — unwavering loyalty to your superiors and look after your men. He brought these important qualities, along with a pleasant personality, to his mid-career appointment in 1982 as LORE Branch CWO. His current work in assisting the LORE Branch Adviser and in the training and policy section NDHQ/DLES provides a unique opportunity to maintain contact with LORE personnel in the promotion of LORE Branch objectives.

CWO Jones is married to Catherine (Rena) McKenna of Lanarkshire, Scotland. They have two sons, Steven and Anthony. Cfn Steven Jones, W TECH L, is currently serving with 2 Service Battalion, CFB Petawawa, and MWO Anthony Jones is with the GGFG Cadets in Ottawa.

COL (RETD) RF POTTER, CD
PRESIDENT, THE LORE ASSOCIATION

Col (Retd) Robert F Potter, CD, was born 11 Aug 1930. He has been employed with Texaco Canada Inc since 1954, and is currently Senior Area Supervisor, Atlantic Region.

Col Potter has lengthy Militia service, beginning in 1952 with the 4th Independent Sig Sqn, RCCS, where he served until 1955. Moving with his employer throughout the Maritimes, the decade 1955-65 involved service and varied experience with several different units including the 64th LAA Regt, RCA, 1955-57; 2 Bn Royal New Brunswick Regt, 1957-59; and a six year period, 1959-65, with 2 Bn Nova Scotia Highlanders (CB).

In 1965, Col Potter joined 32 Militia Service Battalion, Moncton, as Trg Offr Maint Coy, and from 1968-72 served as OC, Maint Coy. In 1970 he was appointed Deputy Commander of the Service Battalion, and then Commander, 1972-80. During the years 1976-80, he was also Commander, Eastern New Brunswick District. He was a member of a writing team for Militia Command and Staff College, and later served as DS on two summer courses conducted in 1975 and in 1976, at Kingston, Ont.

Col Potter has been a member of The LORE (formerly RCEME) Association since 1965. He was Chairman of the Moncton Chapter; a member of the Executive — 2nd Vice President and Chairman, Remembrance Committee; and during the years 1982-83 served as 1st Vice President and Chairman, Resolutions and Remembrance Committees. Col Potter was elected President, The LORE Association, at the Eleventh Annual Meeting held in CFB Borden, 13-15 Oct 83.

Col Potter is married to Marjorie Kathleen and they have a daughter and two sons. One son, David, is attending the NS College of Art and Design, Halifax, and is a member of 33 (Halifax) Service Battalion. Col Potter's address is as follows:

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THE LORE IMPACT ON PROJECT MANAGEMENT

by RW Libbey

Most members of the CF are not involved in the introduction of equipment and weapon systems into service until the new items appear in the Supply System; however, many LORE personnel are engaged in the various stages of such projects. As an example, the Armoured Vehicle General Purpose (AVGP) project illustrates the impact of all ranks and civilians of the Branch on new equipment introduction.

The AVGP project was approved in 1974, to be undertaken in several stages. The first stage involved translating the user requirement into engineering terms which could be readily understood by potential manufacturers. The result was a "Technical Description" of all variants of the proposed AVGP fleet. During Jul 74, a team of eight, including engineers, user representatives, and supply and contracting officers, visited firms in Brazil, France, Germany, Switzerland and the US, to examine and evaluate 14 possible contenders. Included in the team were the Project Manager, Mr RW Libbey (ex RCEME/LORE officer), Maj (now Col) Al McEachern (LORE) and Capt (now Maj) Scotty Phillips (LORE).

The team assessed the suitability of each vehicle for: intended roles; adaptability of selected turrets and weapon systems; engineering and interfacing of these systems with the vehicle; mobility; maintainability; reliability; manufacturing techniques; ergonomics; and overall performance. As a result, the field was narrowed from 14 to 3 vehicles: the Mowag PIRANHA; the Engesa URUTU; and the Cadillac Gage COMMANDO.

The three contenders were airlifted to Wainwright, Alta, for three months of extensive combined user and engineering trials Jan-Mar 75. Some of the LORE personnel involved in these trails were:

LCol R MacIntosh	NDHQ — Test Officer
Capt G Godson	NDHQ — Armaments
Capt L Phillips	NDHQ — Armaments
CWO JD Crawford (now Capt — LORE)	NDHQ — Armaments
CWO D Arnott	NDHQ — W TECH L
WO P Duggan	LETE — EL M TECH
WO R Saunders	LETE — W TECH L
Sgt G Wright	LETE — VEH TECH
Cpl K Melbourne	LETE — VEH TECH

In addition, extensive technical support was provided by Capt GD Walker and LORE personnel of the Wainwright workshop detachment.

The three vehicles were then transported to LETE where further engineering tests were completed by LORE personnel, including:

Maj AL McEachern	NDHQ — Project Officer
Lt G Sowerby	LETE — Test Officer
WO D Chisholm	LETE — VEH TECH

as well as others involved earlier.

Results of the trials and tests showed conclusively that the combination of vehicles and systems which now make up the Cougar, Grizzly, and Husky fleet, was the best. This combination was recommended to Senior Management in NDHQ in Apr 75 in a detailed presentation made by Mr Libbey, assisted by Maj TJ Panke (LORE).

The project was delayed for a variety of reasons until Mar 76 when Treasury Board approved the selection of the Swiss PIRANHA design, to be produced by Diesel Division General Motors (DDGM) in London, Ont, and allocated $2.2 million for contract definition studies. This led to numerous meetings with the Swiss MOWAG engineers, DDGM engineers and production staffs, and user and LORE officers and technicians, to finalize the exact configuration of each of the three variants, incorporating many design changes which were recommended as a result of the Wainwright trials. These studies enabled DDGM to prepare detailed manufacturing

Husky

Cougar

drawings, to design production line layout, and to draw up contractual requirements. A contract was signed on 18 Feb 77, and LORE personnel continued to be involved, even more than previously.

Another important production aspect, Quality Assurance, was established under the guidance of Capt Barney Freeman (LORE) and a team of DND inspectors was located in the plant, eventually to be headed by Capt R Mabee (LORE).

Design Authority was retained by the PM AVGP and exercised in plant by Mr HW (Monty) Banks, an engineering technologist from NDHQ, who was required to approve manufacturing changes before they could be introduced on the production line.

The next stage was to put together a complete support package including: spare parts scaling; check lists; special tool requirements for all maintenance levels; the design of AVGP courses to be conducted at CFSAOE in Borden; the design of special training devices; initial training for LORE and user instructors; and a host of other details. By this time, the cast of LORE people involved had grown to dozens.

The first of 14 vehicles produced in Switzerland was accepted in Oct 78, and the first DDGM vehicle produced in London was officially accepted on 23 Jan 79, by which time production was well under way. At this time the AVGP Project team consisted of:

Project Manager	RW Libbey	(ex RCEME/LORE)
Deputy PM	J Bell	(ex LDSH(RC))
System Engr	R MacIntosh	(ex RCEME/LORE)
Project Engr	Maj F Lucano	LORE
Project Engr	M Torontow	
Project Tech	HW Banks	

Technical Writers	H Noel	(ex RCEME/LORE)
	D Williams	(ex RCA)
	G Cleary	(ex RCEME/LORE)
Clerk	Mrs Isabel McLaughlin	

The last vehicle was delivered in Oct 82, bringing the total number of AVGPs procured to 491. This was 141 more than called for in the original contract, but the project was still within the $300 million budget.

During the production stage, LORE personnel participated in demonstrations and trials in Malaysia, Indonesia, the United States, and Egypt. The success of these ventures is largely due to the excellent support provided by LORE technicians. To name a few:

Maj J Hutchins	LORE
WO J Kilbride	EL M TECH
Sgt W Hutchings	W TECH L
Sgt J Clendenning	VEH TECH
Sgt D Burritt	VEH TECH
MCpl S Downes	EL M TECH
MCpl W Lundel	W TECH L

The important success story at this writing was that the US Army and Marines have awarded a contract to DDGM for 969 vehicles for $625 million, with an option to buy an additional 598 vehicles at a cost of $325 million. These vehicles are 8x8 versions of the CF AVGPs which are 6x6s. This is a significant boost for the Canadian economy, due in very large part to the dedicated technical expertise provided by LORE Branch members of all ranks and trades in support of these sales ventures.

The AVGP fleet is now in service. Some vehicles are being evaluated in Europe, others are on stand-by for further trials and demonstrations. LORE personnel are and will actively and expertly support these activities in the same highly professional manner that contributed so much to the success of the AVGP Project.

AVGP – "GRIZZLY" DESERT TRIALS

by RW Libbey

During the period Jan-Apr 82, two Canadian-built Grizzlys under-went competitive trials for the Egyptian Army in the Cairo and north-western desert areas of Egypt. Vehicles from five countries, produced by seven firms, were tested side by side in all extremes of desert weather including dust storms, heavy rain and high temperatures, over a wide variety of very difficult terrain.

During one part of the test, on a 300 km cross-country march, one of the Grizzlys was assigned the lead position in the column of competing vehicles. While proceeding across a flat desert area at 80 km/hr, it plunged into a wide, deep, hidden trench, severely damaging the front suspension and causing minor injuries to the crew and passengers.

Grizzly

The vehicle was recovered by a Soviet-made wrecker on suspended tow over a 120 km, nine-hour, trip to Mersah Matruh, where the damage was inspected under the direction of Sgt David Burritt, a LORE VEH TECH assigned to the demonstration team. While Sgt Burritt and the remainder of the crew prepared the damaged vehicle for repair and readied the second Grizzly to continue the tests, Mr Ralph MacIntosh, an ex-RCEME/LORE officer who was acting as team leader, departed on an 800 km round trip to the Cairo base area to obtain required spare parts.

Late the next day, the parts arrived from Cairo in the back of a well overloaded Japanese truck which had been hired, with its unsuspecting driver, for "a small job — just down the road". Repairs, which included replacement of both front suspension units and all major steering components, were completed in six hours, working outdoors in a sandy compound under the watchful eyes of the Egyptian Army test officers. It was obvious that they were very impressed with the repairability of the vehicle and with the rapidity that these major repairs were performed, as well as by the teamwork displayed by all members of the Canadian group. The Grizzly was put back in the competition, missing only one day of testing which was made up later on a rest day, and completed the remaining rigorous tests with no further problems. The team considered their effort to be "all in the line of LORE duty".

Incidentally, the trench which caused the damage had been dug by an Egyptian Army bulldozer the day before the accident, and its presence was unknown to the officers that had selected the test route during the previous week.

At the time of this writing (Mar 83), it is of interest to note that Sgt Burritt and Mr MacIntosh were in Cyprus with another small team, preparing the same two vehicles for possible tests and demonstrations in other countries.

ECOLE TECHNIQUE DES FORCES CANADIENNES (ETFC)

by Maj JES Sirois

In the last issue of the LORE Technical Bulletin, readers were given a relatively concise introduction to the history of l'Ecole technique des Forces canadiennes. In this issue, I intend to give you a more elaborate description so that you may become acquainted with one of the elements, sometimes forgotten, of Land Ordnance Engineering.

History

On 15 April 1969, the then Minister of National Defence, the Honorable Léo Cadieux, and the then Chief of the Defence Staff, General Victor Allard, inaugurated L'Ecole technique des Forces canadiennes at CFB St-Jean. At that time, the School was tasked with providing the Performance Oriented Electronics Training (POET) and the 221 Radiotechnician TQ3 Course. The setting up of our institution made it possible to increase the production in both these fields and for Francophone servicemen to attend a technical course given in French in a Francophone environment. Since then, a few changes have occurred. On 16 November 1971, another course was added to the program, namely the 411 Vehicle Technician (Veh Tech) TQ3 Course. The School seemed to be expanding, but on 15 August 1980, the last 221 Radiotechnician TQ3 Course was graduating. So 1983 finds ETFC tasked with providing instruction in French with respect to POET and the Vehicle Technician TQ3 Course.

During its fourteen years of existence, ETFC has had no less than nine commandants and eight school warrant officers. The LORE officers who have led ETFC before me are LCols YA St-Laurent, JP Dagenais and Maj RG St-Aubin. Furthermore, as long as ETFC offers the 411 Veh Tech TQ3 Course, our classification will be represented as the mechanical company is always commanded by a LORE officer.

Of the eight school warrant officers, MWO JR Comeau, 411 Veh Tech, is the only one of a LORE trade that has held this position.

Organization

ETFC's staff presently includes a total of 69 military personnel from the ranks of corporal to major and two civilian employees. They are organized as shown in Figure 1.

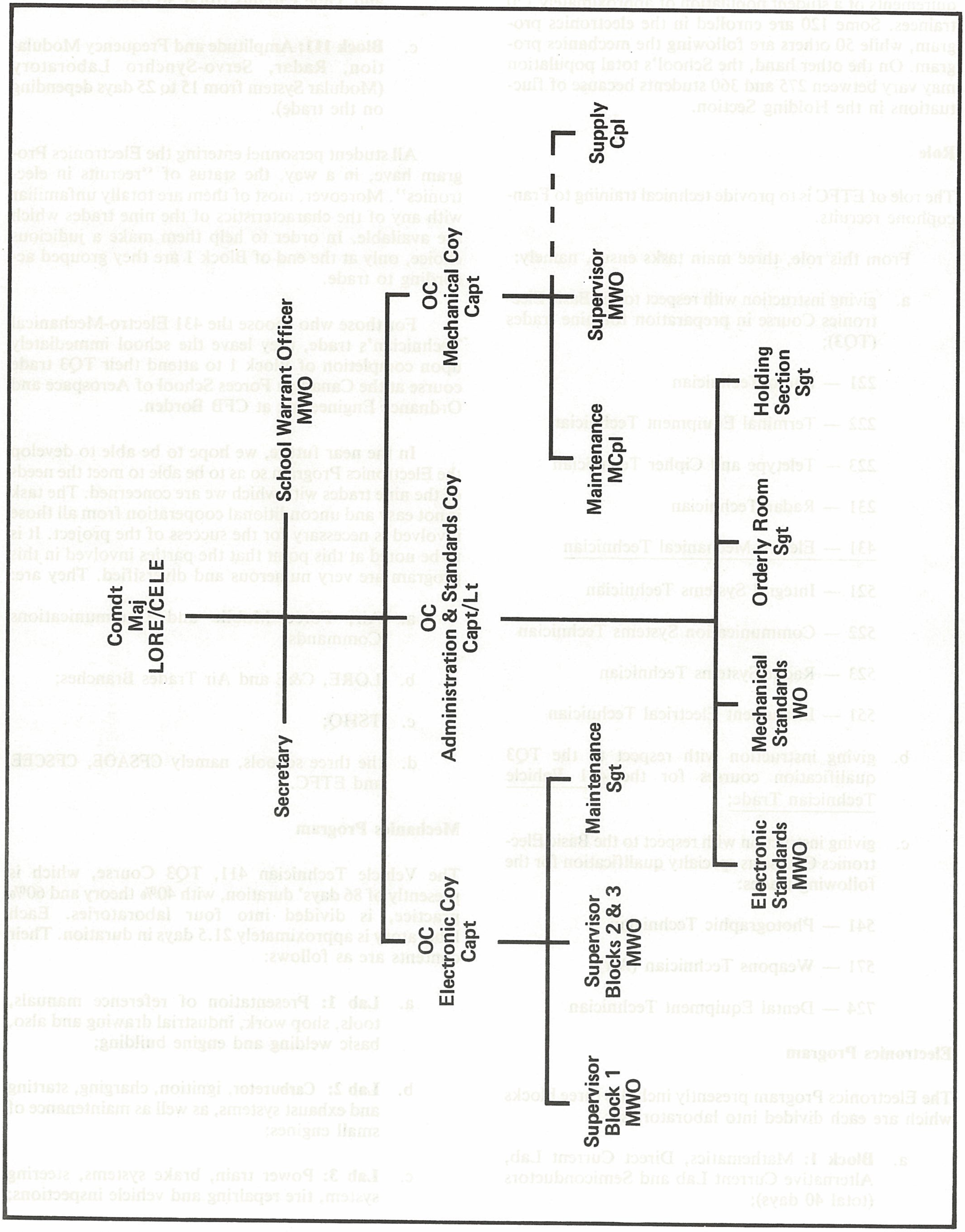


Figure 1 ETFC Organization Chart

With this organization, ETFC can meet the requirements of a student population of approximately 170 trainees. Some 120 are enrolled in the electronics program, while 50 others are following the mechanics program. On the other hand, the School's total population may vary between 275 and 360 students because of fluctuations in the Holding Section.

Role

The role of ETFC is to provide technical training to Francophone recruits.

From this role, three main tasks ensue, namely:

a. giving instruction with respect to the Basic Electronics Course in preparation for nine trades (TQ3);

221 — Radio Technician

222 — Terminal Equipment Technician

223 — Teletype and Cipher Technician

231 — Radar Technician

431 — Electro-Mechanical Technician

521 — Integral Systems Technician

522 — Communication Systems Technician

523 — Radar Systems Technician

551 — Instrument Electrical Technician

b. giving instruction with respect to the TQ3 qualification courses for the 411 Vehicle Technician Trade;

c. giving instruction with respect to the Basic Electronics Course as specialty qualification for the following trades:

541 — Photographic Technician

571 — Weapons Technician (Air)

724 — Dental Equipment Technician

Electronics Program

The Electronics Program presently includes three blocks which are each divided into laboratories:

a. **Block 1:** Mathematics, Direct Current Lab, Alternative Current Lab and Semiconductors (total 40 days);

b. **Block 11:** Transistors Lab, Oscillator, Logic and Tube Circuits (total 30 days);

c. **Block 111:** Amplitude and Frequency Modulation, Radar, Servo-Synchro Laboratory (Modular System from 15 to 25 days depending on the trade).

All student personnel entering the Electronics Program have, in a way, the status of "recruits in electronics". Moreover, most of them are totally unfamiliar with any of the characteristics of the nine trades which are available. In order to help them make a judicious choice, only at the end of Block 1 are they grouped according to trade.

For those who choose the 431 Electro-Mechanical Technician's trade, they leave the school immediately upon completion of Block 1 to attend their TQ3 trade course at the Canadian Forces School of Aerospace and Ordnance Engineering at CFB Borden.

In the near future, we hope to be able to develop the Electronics Program so as to be able to meet the needs of the nine trades with which we are concerned. The task is not easy and unconditional cooperation from all those involved is necessary for the success of the project. It is to be noted at this point that the parties involved in this program are very numerous and diversified. They are:

a. Air, Force Mobile and Communications Commands;

b. LORE, C&E and Air Trades Branches;

c. TSHQ;

d. the three schools, namely CFSAOE, CFSCEE and ETFC.

Mechanics Program

The Vehicle Technician 411, TQ3 Course, which is presently of 86 days' duration, with 40% theory and 60% practice, is divided into four laboratories. Each laboratory is approximately 21.5 days in duration. Their contents are as follows:

a. **Lab 1:** Presentation of reference manuals, tools, shop work, industrial drawing and also, basic welding and engine building;

b. **Lab 2:** Carburetor, ignition, charging, starting and exhaust systems, as well as maintenance of small engines;

c. **Lab 3:** Power train, brake systems, steering system, tire repairing and vehicle inspections;

d. **Lab 4:** Operation of APCs, diesel engine principles and building, steering and suspension of APCs, recovery, storage preparation, overhaul and lubrication.

Before taking the Veh Tech Course, all candidates must have completed a three-week driving course at CFB Borden and have a language profile of 2221 in English acquired from the Ecole des langues. The Veh Tech TQ3 Course also includes a training phase related to land ordnance engineering trades, which deals with field operations. This phase, of 12 days' duration, is only given now at the Canadian Forces School of Aerospace and Ordnance Engineering at Borden. We hope that before June 1983, ETFC students too will participate in this training program, in the same way as those from Borden.

The recent decision of adding training on the AVGP and the new 2-1/2 ton vehicle to the Veh Tech TQ3 Course will mean an additional 79.5 hours or 13 days of training. Reference material and training aids are presently being gathered in anticipation of this change, which is supposed to take place in January 1984.

Military Training Program

In addition to technical instruction, ETFC provides a full military training program. It includes physical conditioning, drill, room inspections and military indoctrination.

Within this program, two hours are devoted to physical conditioning each week. Every sports facility of the Base is then made available to the students. Activities, supervised by specialists, include physical education, gymnasium sports, swimming, and seasonal sports.

Students are required to display a military bearing at all times, and they participate in a school parade at least once a week. This makes it possible to maintain acceptable standards of military bearing. Rooms are inspected at least once a week.

As for the military indoctrination program, it affords students the opportunity to take an interest in fields other than those with which they were concerned on enrollment, and thus to add to their interests. In addition to the activities of sports leagues organized at CFB St-Jean, ETFC tries to organize new activities, using its own resources. In that spirit, two groups are involved in music: the band and a guitar group. We are also about to organize electronics and mechanics clubs. All students are required to participate in at least one of the suggested activities once a week. This type of program is difficult to control and is very exacting for the staff. This is why projects must be judiciously evaluated according to their merits and their costs in personnel or other resources.

Facilities

ETFC has the exclusive use of two buildings at CFB St-Jean. One houses the School's Headquarters and the Electronics Company, while the other accommodates the Mechanical Company. Each building is equipped with the training aids required to meet the course standards set by TSHQ. However, a $200 thousand project has already been approved for the renovation of the building used by the Mechanical Company.

Personnel services such as living quarters, messes, Base Exchange and sports centre facilities, as well as administrative services, are located in what is known at St-Jean as "The Megastructure". This 1,400-foot long and 5 to 12 story high building can accommodate up to 2,380 persons and is the work place for over 1,200 military and civilian employees. Together with NDHQ, it is no doubt the largest DND building.

The Mechanical Company holds its outdoor academic activities such as operating APC and recovery vehicle on a field adjacent to CFB St-Jean which is rented from the Department of Transport. This is a definite improvement on the usual practice which consisted of moving equipment and personnel to Camp Farnham for periods of 4 to 5 days nearly every month.

So, compared to many other schools, ETFC's facilities fully meet our needs and satisfy both instructors and trainees.

Conclusion

Although ETFC's productivity is no match for magnificent schools such as CFSAOE and CFSCEE, the fact still remains that ETFC meets a real need. This need is that of young Francophone recruits who prefer not having to adapt to a more or less unfamiliar social and linguistic environment while, at the same time, adapting to a trade and military life.

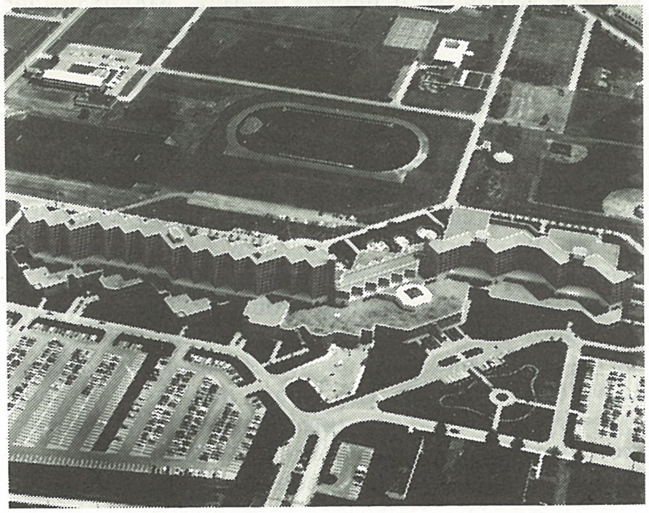
ETFC is proud of its accomplishments of the last 14 years, and we hope to be able to serve for a long time to come, those young French Canadians who wish to make a career in one of the technical trades within the Armed Forces in the French language. In this way, we are serving very well the Armed Forces to whom we are giving a better opportunity to draw from a sector of the Canadian population, which is not negligible, the human resources necessary to the proper maintenance of the military equipment.

What is the breakdown?

Instruction on towing is given outdoors

Drill and physical conditioning are integrated into the training program

Hangar 104 houses the Mechanical Company



The ''Megastructure''

HONOURS AND AWARDS

MWO Robert Comeau enrolled in 1960 as an infantryman with the R22eR serving there until 1965. He then remustered to VEH TECH 411, completed basic technical training in 1966 and moved to 1 R22eR in Germany. Returning to Canada in 1970, there followed a series of field postings in Valcartier with 5 Service Battalion, 2 R22eR, and 5 Fld Amb. He was promoted to Sgt in 1974 and placed on detached service in support of the Olympics in 1976. He was promoted to WO in 1978 and posted to ETFC, St-Jean in 1980 for employment as Standards Warrant Officer with Mechanical Coy. After promotion to MWO in 1981, he was appointed School Master Warrant Officer and currently holds that position.

MWO Comeau is noted for dedication, enthusiasm, dynamism and initiative in undertaking all activities. Typical of his many accomplishments outside the realm of vehicle technician is a silver medal award in boxing as a lightweight in the 1963 Canadian Army Championships. He has spent many off duty hours teaching judo and unarmed combat to military dependants both in Germany and Valcartier. Another example, his quick unselfish reaction when arriving on the scene of an automobile accident he applied mouth to mouth resuscitation to an unconscious victim for over 20 minutes until medical help arrived.

All of these qualities have made MWO Comeau a well appreciated and respected member of the Armed Forces, the LORE Branch, and appointment to the Order of Military Merit.

Congratulations to MWO RJ Comeau of ETFC St-Jean.

His Excellency Governor General Edward Schreyer Presenting the Order of Military Merit to MWO Robert Comeau, VEH TECH 411.

HONOURS AND AWARDS

Mr AW Eady, a Packaging Design Officer in DCGEM, recently submitted a suggestion for the use of "Zerust" capsules in lieu of heavy grease for the long-term preservation of weapons. The suggestion was accepted at an estimated saving to DND of $32,000 annually, for which Mr Eady was granted a suggestion award of $1 390.

"Zerust" is available in the Supply System under 6850-21-880-6758 Inhibitor, Corrosion, Vapour Barrier, Sealed Package. Each capsule consists of a family of volatile corrosion inhibitors designed to protect metallic surfaces within an enclosure against airborne corrosion.

Art Eady has had a long military career beginning with the Militia in 1943. In 1945 he joined the CTTC as a Boy Soldier and subsequently transferred to RCEME and mechanical training. He then remustered to RCOC where he concentrated on military packaging, and served 10 years as an instructor at the Packaging School, 5 years at Montreal and 5 years at Borden. Other postings included Hamilton, Woodstock, Montreal, Wainwright, Germany, Halifax, Whitehorse and Ottawa. He retired as a CWO in 1977 and then rejoined the Department as a civilian technical officer.

Congratulations, Art Eady!

Mr AW Eady, DCGEM, receives a Suggestion Award from BGen JGR Doucet

INTRODUCTION OF THE MLVW

by MWO JP Perry

In early 1983, a training requirement arrived at CFSAOE Veh Coy, CFB Borden, associated with introduction of the new Medium Logistics Vehicle (Wheeled), which is the replacement for the now aging 2-1/2 ton.

The initial training package was the responsibility of the vehicle manufacturer, Bombardier, who contracted with Friesen Kay & Associates to develop and administer a course using the self-paced method. Two courses were designed, one for drivers and the other for VEH TECHS 411. The civilian team from Friesen Kay & Associates working on the package were Mr Moe Meharey and Mr Steve Ewing. The NDHQ representative was CWO CH Allen, the expert on military course content who had been with the project from its onset, and MWO JA Dignard, who provided logistic support. MWO Dignard was to ensure that training aids, course package, space and equipment were available. After meeting the technical and administrative requirements, the course proceeded as planned.

It was conducted in two stages. First, Bombardier ran a 10 day validation course, a prerequisite being the three-day driver's course. Veh Coy loaded two instructors on this course, plus one from Standards Coy, while the remaining 12 students attended from various Bases. The CFSAOE students were WO AA Gordon, MCpl RA Chapman and the author.

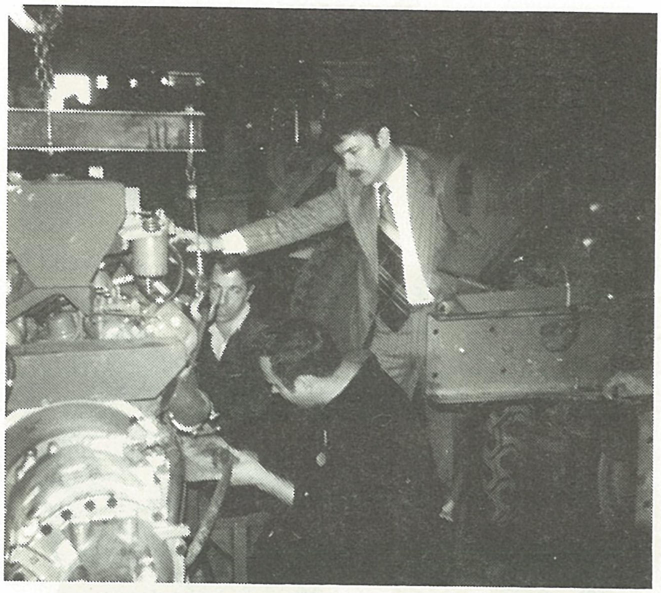
These three newly-trained instructors from CFSAOE organized and operated the second phase, which was revised and updated based on the results of the validation course. Fifteen students completed the course and will now be responsible for similar training when the course material and vehicles arrive at their units.

This program provides trained personnel with a maintenance capability and some experience before units receive the new MLVW. Formerly, technicians gained similar experience through OJT after vehicles were on charge.

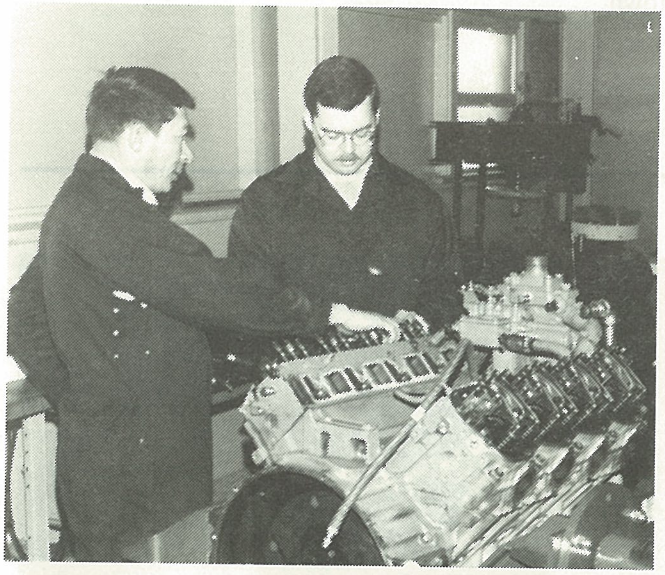
Self-paced training is new to the Forces and was used successfully in the MLVW program. This training method allows the individual to learn at his own pace. The use of sound over slide projectors is required with earphones, workbooks, activity books and manuals, and learning supervisors rather than instructors. The supervisors guide students in course content, ensure safety and provide expertise, as well as administer the program.

The MLVW is a welcome addition to the Forces. The new self-paced training method will contribute to an improved maintenance system as the fleet is brought on line.

CWO CH Allen, NDHQ, explains a point to two students on the MLVW Validation Course



MWO Perry and MCpl Chapman, CFSAOE, fitting power pack to prototype field engine stand. Observing is Mr Steve Ewing.



MCpl Steves, RCD Lahr, and MCpl Fiddler, CFB Gagetown, carrying out engine assembly and tune up

MCpl Chapman, CFSAOE, and MCpl Hobin, RCHA Lahr — power pack removal.

PROMOTION

Another "first" for Maint Coy, CFB Gagetown. Maj JE Morrison and MWO RD Hamilton, Fire Control Systems Technician, congratulate MCpl (W) Maksemuik on her recent promotion. MCpl (W) Maksemuik is the first female MCpl in the Fire Control Systems trade.

She was born in Ottawa, Ont, the daughter of Rita and Amédée Gauthier.

In May 1976, she realized that the Canadian Forces offered excellent career opportunities and enrolled as an Electro-Mechanical Technician (now the Fire Control Systems trade). She was the first female enrolled in this trade.

Upon completion of her basic training (POET and TQ 3), she was posted to CFB Gagetown where she met and married her husband, MCpl Sid Maksemuik, who is also an FCS TECH.

In Aug 1978, they were both posted to Europe where they remained for four years. MCpl (W) Maksemuik was employed in Base Maint for two years, and for two years in 4 Service Battalion.

MCpl (W) Maksemuik is now employed in the new second line Instrument Shop of Maint Coy, CFB Gagetown.

RCEME/LORE HISTORY FUND

This past summer a raffle was held at CFB Borden, to help raise funds for the initial printing of the RCEME/LORE History now being produced. The prize was a hand-crafted cribbage board/coffee table, made in solid oak and brass by Frank Renczes, an ex-RCEME tradesman. Mr Renczes, who donated the beautiful table, now operates his own custom woodworking and brass shop in Port Colbourne, Ont.

The raffle, organized by CFSAOE, helped to raise $330 which was turned over to The LORE Association at its annual conference in Borden, Oct 83. It was also only fitting (at least in the winner's opinion) that the winner, Maj Bill Leslie, Base Maint Officer, Borden, should have served in both RCEME and LORE over his long career.

Col Jim Hanson, Commandant, CFSAOE presenting the cribbage table to Maj Bill Leslie

OPENING OF THE NEW FIRE CONTROL SYSTEMS FACILITY MAINT COY – CFB GAGETOWN

First Row (L to R) **Maj Richmond, CE Coy; LCol Genest, SSO Tech; BGen Doucet, DGLEM; BGen Morneault, Comd; CWO Jones, LORE Branch CWO; Maj Morrison, OC Maint Coy.**

Second Row (L to R) **MWO Hamilton, OIC Sp Pl; Lt Jestin, OIC Comp Pl; WO Stavert, NCO IC FCS Facility; LCol Marleau, SSO Maint FMCHQ; 2Lt JD MacLeod, Con O; CWO R Smith, ETSM.**

On 18 Mar 83, BGen JJ Morneault, Commander, Combat Training Centre and CFB Gagetown, and BGen JGR Doucet, DGLEM, cut the traditional red ribbon signifying the official opening of the Fire Control Systems (FCS) Facility.

Completely renovated, the facility houses a Class 100 000 environmental controlled clean room for optronic repairs as well as air-conditioned work areas for electronic and electro-mechanical repairs.

The facility will accommodate sufficient technicians and test equipment to carry out second line repairs to land missile systems, laser range finders, gun control computers, low light level television systems and day/night sighting and observing devices. It will play a vital role in supporting the Combat Training Centre and lodger units of CFB Gagetown, as well as militia/cadet units in the New Brunswick area.

LORE ASSOCIATION UPDATE

(Correction: In Issue 1/83, LORE Technical Bulletin, Page 99, the MONCTON Chapter was omitted. This is regretted. The active Chapters of the LOREA are — MONCTON, OTTAWA, KINGSTON, TORONTO, WINNIPEG and VANCOUVER).

The Eleventh Annual Meeting of the LOREA was held in CFB Borden 13-15 Oct 83 and a review of the proceedings clearly shows considerable progress. Many of our members would perhaps like to see greater changes and more rapid progress, but any progress in these uncertain times is a sign that LORE is healthy. Some of the positive signs are:

a. Resolutions — Every resolution submitted in 1982 has received positive response and some, such as 82/4 on UIC benefits, is still before other government departments for consideration. All chapters are urged to prepare resolutions for next year. It was noted that we may submit only three resolutions to CDA and these should be of National Scope.

b. Complaints passed to SSO Maint FMC — At the 1982 meeting, delegates passed several complaints to the SSO Maint; eg, Course Training Packages and Tool Boxes. These, and others, have been favourably actioned by FMCHQ and we can look forward to increased support of the LORE Militia by FMCHQ.

c. Equipment — In addition to tool boxes, the Militia will be getting the new 2-1/2 Ton Trucks and other equipment. While much more equipment would be welcomed by the Militia, deliveries of more than 600 2-1/2 Ton Trucks to them indicates a willingness to provide the Militia with new equipment, not "hand-me-downs" from the Regular Force. The maintenance of these new trucks provides an opportunity for our Militia VEH TECHS to once again prove their effectiveness.

d. Job Satisfaction — All reports indicate that the Militia Offrs, WOs, NCOs and Ptes can serve effectively alongside their Regular Force homologs. To build on this good foundation, all Maint Coy Commanders, Militia and Regular Force, are urged to effect close liaison and maximize the use of each others resources. The SSO Maint stressed that many apparent problems would disappear with closer ties between Militia and Regular Force personnel. He offered the services of his office, especially his SO 3 Maint, to help solve LORE Militia problems.

e. Restructuring — Col V Pergat, FMC HQ DCOS LOG, briefed the delegates on the high level of activity in the senior HQs aimed at giving the Militia a more meaningful role in the Defence of Canada. To truly be a force which "enhances the war deterrence capability of the Canadian Armed Forces".

f. Role of LORE in Defence — The role of LORE in the armed forces equipped with complex modern weapons cannot be overstated. It behoves all LORE personnel to devote themselves to ensuring that the CF will have the most effective equipment our limited resources can buy. This dedication will entail not only fully accepting our role as the Engineers and Maintainers of a wide variety of equipments and systems, but to use our managerial and technical skills so effectively that our role will never be questioned. An example of dedication is that of Capt Bill Sheldon who, in spite of his tender age of 85, continues to be an active supporter of the LOREA.

g. The LORE History — The history of LORE, which includes RCOC(E), RCEME and MSEO, will be published under the auspices of the Association and will be available by mid-May 84. This handsome book of 256 pages including 50 pages of photographs and maps will be sold for under $10.00. You may already have received order forms and readers are urged to buy a copy for themselves and some copies to be given away as gifts.

A problem area noted by most delegates is the lack of Offrs, WOs, and Sgts in LORE Militia Units. Often Maint Coys must be commanded by LOG or SEC officers. Readers are urged to use every occasion to tell qualified young people about the challenges in the Militia. Attempts are being made to reduce the red tape in enrolling in the Militia and acquiring trade qualifications. This Technical Bulletin will be read by several thousand persons. If every reader would try and recruit a member for the LORE Militia, all units would soon be up to their paid ceiling. The best recruiting is by example and word of mouth.

A second complaint heard was of not enough exchange of information. While units and chapters may exchange information among themselves as they deem necessary, the Branch Adviser told the delegates that to assist them in this regard, he has established an SO LORE position, now held by Maj André Montgiraud. He urged delegates to note the SO LORE Tel. No. (613) 992-2331 and to use the SO LORE for their PR.

1984 Meeting — The next meeting will probably be held in CFB Borden, 11-13 Oct 84. Members are urged to plan to attend and are reminded to work up resolutions and position papers for presentation at the meeting.

The 1983/84 Executives of the LOREA are:

President:	Col	RF Potter	CD
1st VP:	Maj	NA Graham	CD
2nd VP:	LCol	RH Felstead	CD
3rd VP:	Col	JC Boughton	CD
Hon Treas:	LCol	R Hilliard	ADC
Hon Sec:	Col	WG Svab	CD
Immediate Past President:	Maj	D Hillman	CD
Sr LORE Militia Officer:	TBA		

LORE PROFESSIONAL DEVELOPMENT SEMINAR HELD AT LAND ENGINEERING TEST ESTABLISHMENT 11-12 MAY 1983

Front Row Col I Isbester; Col JAF Huot; Col AR Millar; Maj GW Keays; Col MAC Campbell; Maj Gen TB Palmer; BGen JGR Doucet; BGen (Ret'd) A Mendelsohn; Col JI Hanson; Col BL Code; Col AL McEachern; Col Fischer

Second Row MWO JR Landry; CWO JG Gamache; CWO JJY Egglefield; Maj AG Montgiraud; LCol JGG Nappert; LCol DG Porter; Capt RA Shostal; CWO TD Jones; Capt G Thayer; LCol RJ Langdon; CWO EM Faulkner; CWO RJ Clackett; CWO DG McCully

Third Row Maj PG Collinge; MWO HM Dickie; Maj GE Maguire; LCol AR Gillis; CWO JAL Levesque; LCol E Galea; LCol JAY St Laurent; LCol JJR Marleau; LCol JAN Nault; LCol JD McDougall; Maj CMP Thompson, Maj JP Deschenes; Maj WJ Dawson; Maj LW Hyttenrauch

Fourth Row Maj JG Reade; CWO JL Tennant; Maj BP Jeffery; Capt AR Peterson; LCol PA Vlossak; Maj JP Williams; Maj LM McClafferty; Mr GT Holmes; Capt GW Godson; CWO GB Ley; Maj JES Sirois

15TH LORE BIRTHDAY AT CFB OTTAWA

CFB Ottawa, Base Maintenance Land, hosted a highly successful celebration for the June 1, 1983, 15th LORE Birthday. Ottawa area personnel from DGLEM, LETE, and BML gathered to perpetuate a tradition started many years ago by the former RCEME Corps.

BGen JGR Doucet, DGLEM, opened LORE Day in the afternoon, throwing the first baseball to commence a full slate of sports activities. The overall LORE Sports trophy was captured by BML, with LETE winning the baseball event, DGLEM the conventional darts and BML the lawn darts.

In the evening, an All Ranks reception and dinner for members, families and invited guests was held in Hangar 5 of BML. The Hangar was specially decorated for the occasion in a fashionable ballroom atmosphere by dedicated Workshop personnel.

Special guests were B Comd Col and Mrs CD Young, LORE Branch CWO and Mrs TD Jones, and BCWO AW Roque.

An outstanding celebration for the 15th LORE Birthday!

Cake cutting ceremonies at 15th LORE Birthday. BGen JGR Doucet (Centre), CWO TD Jones (Left), and Pte K Baltzer. Maj JK Watts supervising.